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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/550,034      | 06/19/2006  | Joe Wada             | 9342-335            | 7421             |

20792 7590 09/26/2007  
MYERS BIGEL SIBLEY & SAJOVEC  
PO BOX 37428  
RALEIGH, NC 27627

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| EXAMINER |
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NGUYEN, TUAN HOANG

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| ART UNIT | PAPER NUMBER |
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2618

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| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

09/26/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                            |                  |
|------------------------------|----------------------------|------------------|
| <b>Office Action Summary</b> | Application No.            | Applicant(s)     |
|                              | 10/550,034                 | WADA ET AL.      |
|                              | Examiner<br>Tuan H. Nguyen | Art Unit<br>2618 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 21 August 2007.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1 and 5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 and 5 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

|  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/18/2006 has been entered.

2. Claims 2-4 cancelled.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frederick Yi-Tung Cho (UK Patent Application GB 2 322 504 hereinafter, "Cho") in view of Charlier et al. (U.S PAT. 6,934,568 hereinafter, "Charlier").

Consider claim 1, Cho teaches a clamshell-type mobile terminal (100) for a wireless communication system, comprising: a lower casing (103) comprising a keypad (107) with input keys; an upper casing (102) comprising a display (105), said lower casing and said upper casing being connected by a hinge mechanism connecting the lower casing and the upper casing so that the lower casing and the upper casing can be folded onto each other, whereby the lower casing is the casing part, which during operating the mobile terminal is in the palm of the hand of the user, whereby the upper casing is extending away from the hand of the user in an opened state of the mobile terminal and folded onto the lower casing in a closed state of the mobile terminal (figs. 1 and 3, page 3 line 32 through page 4 line 16), whereby the hinge mechanism is located and arranged so that in the opened state, the lower casing lies above the upper casing enabling an easy access to input keys located close to the hinge mechanism on the lower casing (figs. 1 and 3 page 4 lines 10-16), and whereby a rotation axis of the hinge mechanism forming a centre of the folding movement between the lower casing and the upper casing lies in a middle plane of the lower casing (figs. 1 and 3 page 4 lines 10-16).

Cho does not explicitly show that the hinge mechanism comprises at least one fixed structure projecting from the display plane of the upper casing and at least one

rotating structure movably connecting the lower casing to the at least one fixed structure; wherein the at least one fixed structure and the lower casing respectively comprise through holes into and through which the at least one rotating structure extends; wherein the at least one fixed structure and the lower casing respectively comprise through holes into and through which the at least one rotating structure extends; wherein the at least one rotating structure includes a first and a second part that are rotatable against one another; wherein said first part of said rotatable structure is connected to said at least one fixed structure in a non-rotatable manner and said second part of said rotatable structure is connected to said lower casing in a non-rotatable manner.

In the same field of endeavor, Charlier teaches the hinge mechanism comprises at least one fixed structure projecting from the display plane of the upper casing and at least one rotating structure movably connecting the lower casing to the at least one fixed structure (fig. 3 col. 4 line 50 through col. 5 line 2); wherein the at least one fixed structure and the lower casing respectively comprise through holes into and through which the at least one rotating structure extends (fig. 3 col. 4 line 50 through col. 5 line 2); wherein the at least one fixed structure and the lower casing respectively comprise through holes into and through which the at least one rotating structure extends (fig. 3 col. 4 line 50 through col. 5 line 2); wherein the at least one rotating structure includes a first and a second part that are rotatable against one another (fig. 3 col. 4 line 50 through col. 5 line 2); wherein said first part of said rotatable structure is connected to said at least one fixed structure in a non-rotatable manner and said second part of said

rotatable structure is connected to said lower casing in a non-rotatable manner (fig. 3 col. 4 line 50 through col. 5 line 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, the hinge mechanism comprises at least one fixed structure projecting from the display plane of the upper casing and at least one rotating structure movably connecting the lower casing to the at least one fixed structure; wherein the at least one fixed structure and the lower casing respectively comprise through holes into and through which the at least one rotating structure extends; wherein the at least one fixed structure and the lower casing respectively comprise through holes into and through which the at least one rotating structure extends; wherein the at least one rotating structure includes a first and a second part that are rotatable against one another; wherein said first part of said rotatable structure is connected to said at least one fixed structure in a non-rotatable manner and said second part of said rotatable structure is connected to said lower casing in a non-rotatable manner, as taught by Charlier, in order to provide a communication device with a very small collapsed form factor while providing the capability to expand the phone to a usable size with a one-handed operation.

Consider claim 5, Cho further teaches the clamshell-type mobile terminal according to claim 1 essentially comprising the lower casing and the upper casing (figs. 1 and 3, page 3 line 32 through page 4 line 16).

***Conclusion***

5. Any response to this action should be mailed to:

Mail Stop \_\_\_\_\_ (Explanation, e.g., Amendment or After-final, etc.)  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571)272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571)272-7882882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2618

Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Nguyen  
Examiner  
Art Unit 2618

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER